

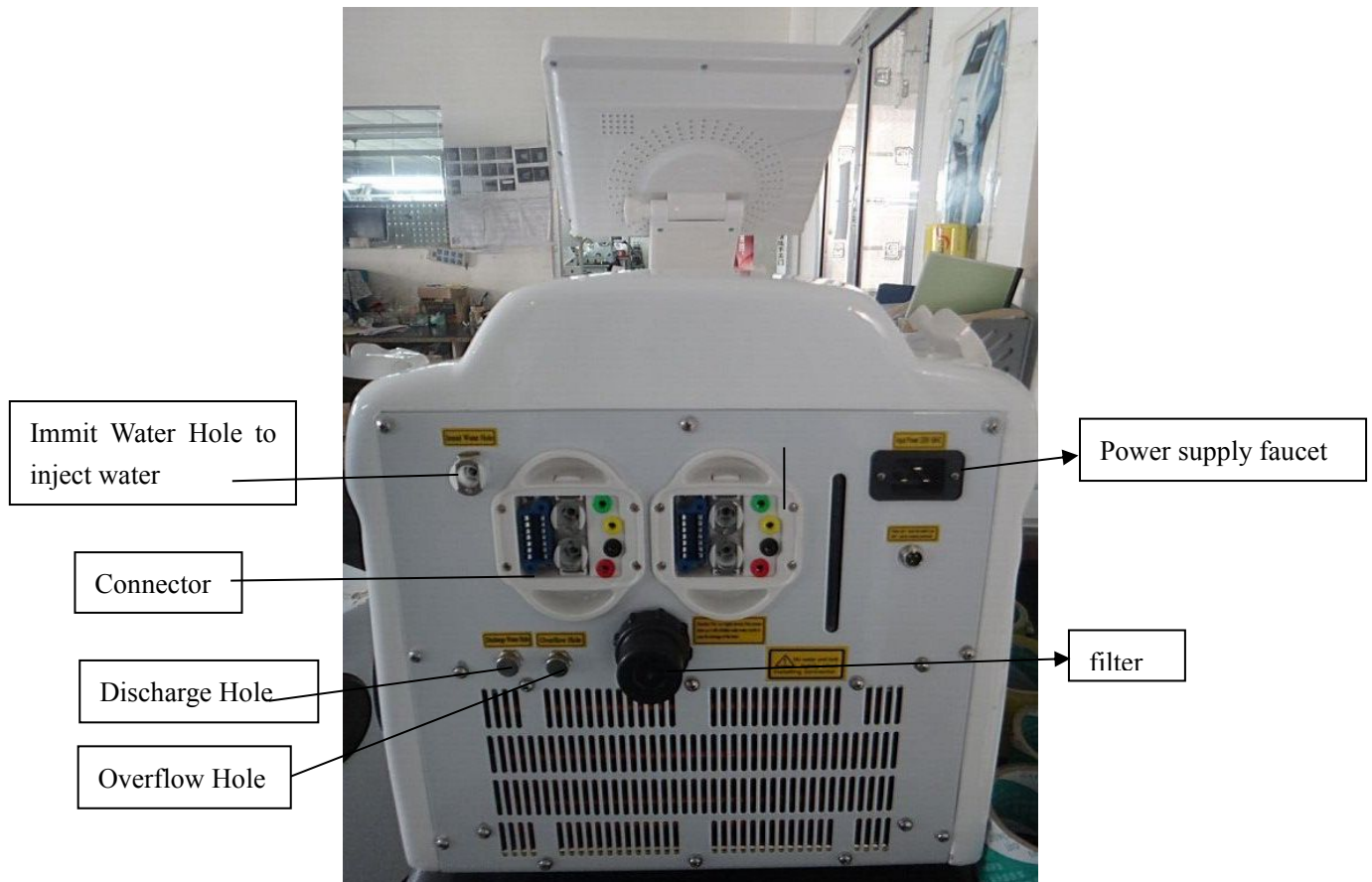
# Training Material

# SHR IPL



# Chapter I How to inject pure/distilled water into SHR?

**Alarm: Operating machine when the water tank has no water or has no enough water is absolutely prohibited!**



Picture 1 The back of SHR



Picture 2 this is the water pipe and funnel



Picture 3 This is Immit Water Hole for injecting water



Picture 4 Take off the screw cap of the Overflow Hole.



Picture 5 Put the water pipe into this immit water hole.



Picture 6 Connect the funnel and pipe



Picture 7 Lift the water case higher than the equipment in order to inject water easily.





Picture 8 when water comes out from the Overflow Hole, water tank in the equipment is full of water. That means the water injection is finished.



Picture 9 Take the water pipe off.



Picture 10 Cover the screw cap. The water injection is finished. At this moment, power supply can be used and ran the equipment.

**【 Alarm 】 Please keep the connector on the Immit Water Hole as Picture 11 shows when you take the pipe off. That is very important !**



connector



Picture 11

After you fill the water and then open the equipment and wait 5 second time and then use your finger to touch the handpiece , if the handle piece have a good cooling , and then it means you can work now

## **Chapter II How to use SHR?**

### **Choose suitable treatment parameter:**

Choose suitable pulse number, pulse width and pulse interval time, and set up the energy from low to high, meantime observe the color change of the skin. It is OK when the skin becomes a little red temporarily. Setting parameter is very important, which should be different according to different patients. Parameters should be adjusted in accordance with skin reflection during the treatment. The principle is as the following:

1. The thicker skin and the pathological skin spread deeper need longer pulse width and higher energy.
2. The darker, thinner skin is, the more sensitive skin is, and the lower energy should be used.
3. When to operate on the part with less subcutaneous tissue, low energy should be used at first. With more times of treatment, properly enhance  $1-2\text{J}/\text{cm}^2$ .

### **Management on the skin before and after treatment:**

The hairs on the surface of skin should be shaved before the hair removal operating.

And the couplant, like cold gel, should be daubed averagely on the skin. Cold compress with cold towels on the skin in 20-30 minutes after a treatment is better to ease pain and inflammation. In this situation, the aloe vera gel can be daubed to make recovery. During operation, the using of SPF15-30 sunscreen cream is suggested for against sun burnt. Also having vitaminB<sub>1</sub> could reduce the sensitivity of skin to light. The photonasty medicine and food (like celery, leek, caraway etc.) should be prohibited. The person with sensitive skin is prohibited to eat food that may cause skin allergy. Dryness of skin may be happened among part of patients, because absorbing capability of skin is getting stronger and body metabolism is getting faster after operating. So the complementarity of water and nutrition by skincare is necessary after operation. For thorough effect, the pigment that related to incretion should be treated with matching medicines.

### **Treatment Period:**

Each treatment lasts 20 minutes. The interval of every 2 treatments is 3 weeks. 3-5 treatments are a period. Why there are so many treatments? It is to reduce secondary reaction while to gradually beautify skin. In addition, we can start our work and life soon after a treatment with IPL, which is in accord with modern life. Treatment time and times are up to the size and degree of pathological area. Each treatment produces remarkable improvement.

### **Complicating disease**

Seldom complicating diseases arise under the normal operation .The most familiar complicating disease is temporary rubeosis on skin, which needs no cure and would become normal in several hours after a treatment. Water blister, scab or purpura may appear on the treatment area of a very few of patients after a treatment, which is caused by overhigh energy or repeated overlapping of light spots. The area of water blister, scab or purpura should be kept dry and clean and it will disappear in 2 weeks. Because intense light sensibility for different people is different, pigmentation may be

caused on a very few of patients. The pigmentation would be absorbed by our body in 3-9 months. Meantime, patients with pigmentation should try not to be under the sun for a long time and can have vitamin C and vitamin E to accelerate color metabolism. Part of treatment area, when a treatment is on, may feel like being shot by a rubber band. Most of the patients can bear it. No need to use anesthesia. For those who are sensitive in pain, narcotic can be sprayed on the treatment part before treatment.

## **Chapter III Taboo Instructions**

### **Taboo**

- a. Pregnant, high blood pressure, cardiopathy, diabetes
- b. Irritability skin for light
- c. The open scar part
- d. People who don't shun the sun in long time
- e. Stop using the efficiency products in 1-3 months
- f. Forbid to enlarge breast during the menses
- g. The scars, birthmarks, naevi which higher than the skin

### **Notices:**

- a. There is dangerous high-voltage inside the equipment, please make the panel board and cover board closed.
- b. The light head must hang on the tieback when you don't use it.
- c. The light head should point at the operated position, because it sends out high-intension pulse light.
- d. Make sure the safety of the medical personnel and sufferer. Don't see the light directly even you wear the protection glasses.

### **【Warning】**

It can cause hot damages of the skin if the treatment part of the skin accepts excessive light so as to making the hyperplasia or atrophy of the tissue, and even making the abnormal pigment depositing.



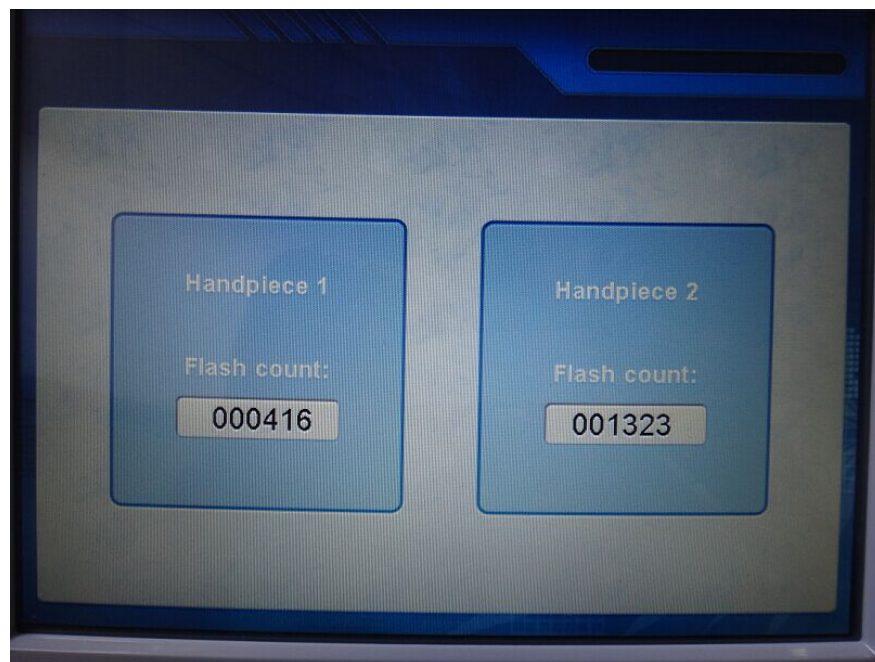
# Chapter IV Introduction of SHR

## Treatment principle:

SHR is a new technology of permanent hair removal which is having a sweeping success. The working theory is heating the dermis to a target temperature gradually. At that target temperature, it damages the hair follicles and prevents re-growth effectively. Meanwhile avoiding injury to the surrounding tissue. A high repetition rate of single pulses are delivered deep into the dermis, achieving high average power and therapeutically effective heat build-up, without the risk of injury and no pain virtually.

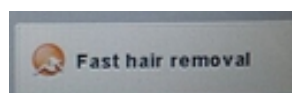
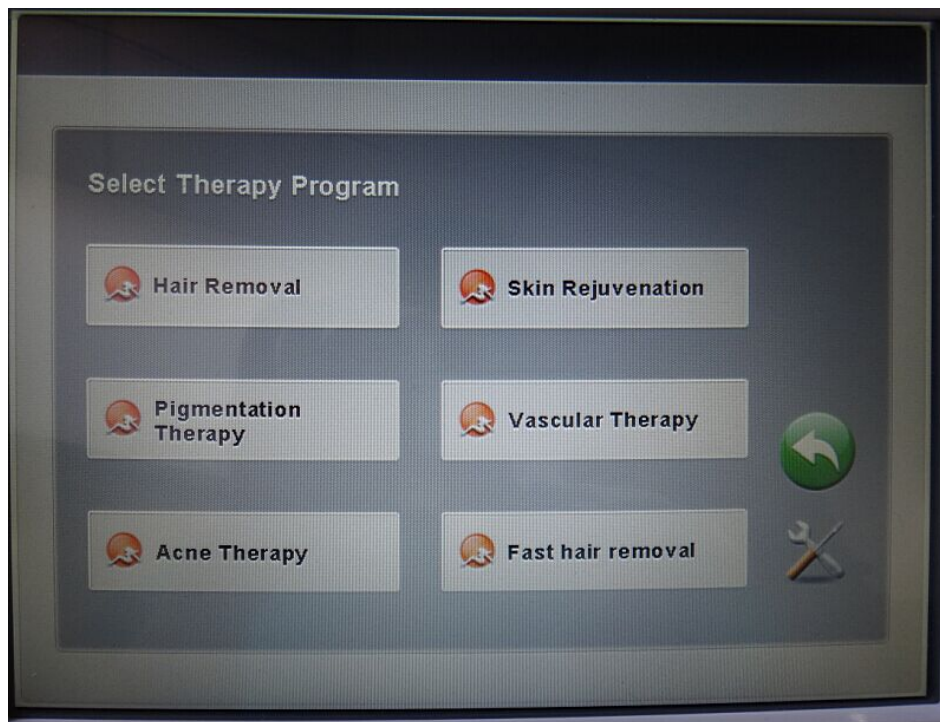
## Operating system:

### 1. To choose the treatment interface

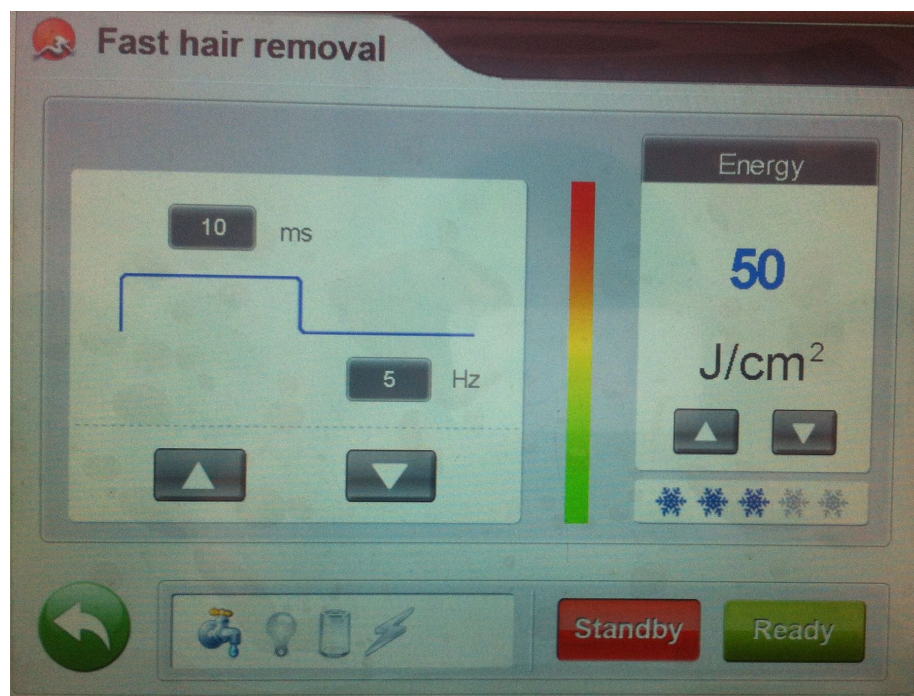


Click Handpiece 1, enter the interface 1. use the standard handpiece

Click Handpiece 2, enter the interface 2. use the big spot handpiece



Enter SHR mode, please click

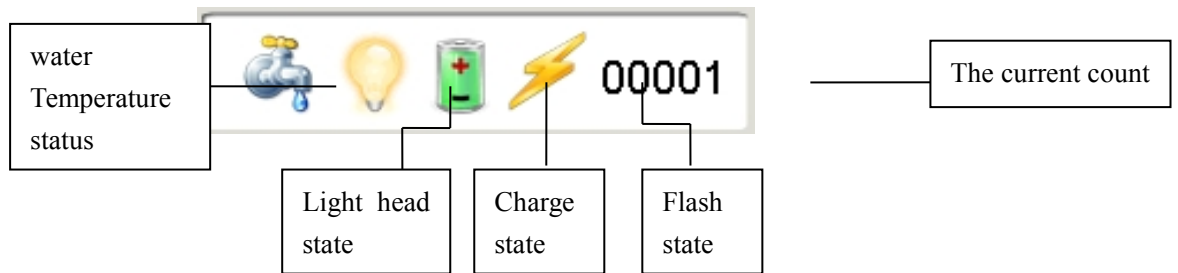


Click

and



to increase and decrease the settings.



**Water / water Temperature status:** Cooling system used to display system status;;



: water cycle normal;

: Water cycle abnormality

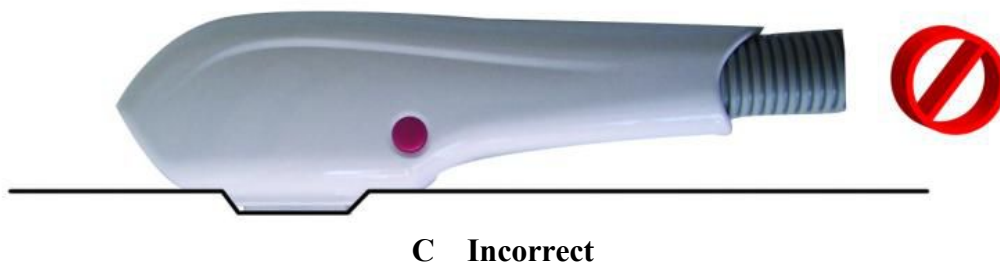
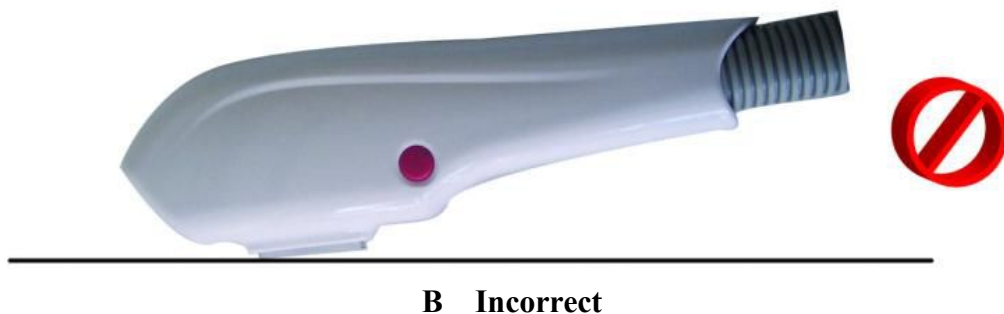
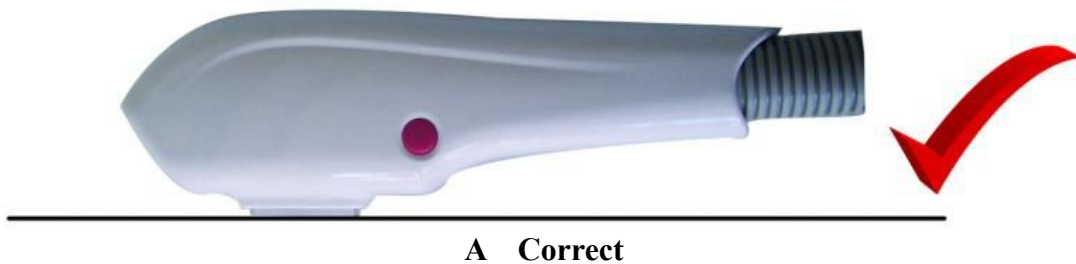


: high temperature ;

Abnormal or high water temperature icon is displayed; the apparatus to enter the job status should not need to check before troubleshooting can be used.

## Operation

Please pay attention the way of handpiece during the treatment.



Pay attention for operation

1. Apply a thin layer ( 2-3MM) of cold gel over the entire treatment area.
2. Start the machine, processing step by step and adjust the suitable parametre.
3. While exerting light pressure, approximate the treatment head perpendicularly

over the treatment area. Ensure both metal slices of the head touch the skin naturally at the same time during treatment, If only one side metal slice touch the skin, it can be easily burnt skin. See above picture (1)Then can press the red bottoms to treatment. Before the treatment head leave the skin, please loose the red buttom first then treatment head can be off the skin.

4. When the skin is in red after operation, coat the cool get till the red is die out. Do not wash with water.

#### See follow principle

The white skin and lighter Skin	1.Increase the power energy
	2.Decrease the pulse delay=(pluse interval) more cooling
The daker skin	1. Decrease the power energy
	2. Increase the pulse delay ( allow more cooling)
The lighter the hair /pigments	1.Increase the power energy
	2. Decrease the pulse delay= ( pluse interval)
The darker the hair/ pigment lesion	1. Decrease the power engery
	2.Increase the pulse delay= (plus interval) more cooling
Fine Blood Vessels ( vascular lesion)	1.Increase the power energy
	2. Decrease the pulse delay= ( pulse interval)
Thick Blood vessels	1. Decrease the power energy
	2. Increase the pulse delay= ( pulse interval)cool more
The smaller the target size / lesion ( vascular)	1.Decrease pulse delay
The larger the target size/ lesion ( vascular)	1. Increase pulse delay ( allow more cooling )
Bony prominences (forehead, molar area, shin, bikini)	1. Decrease the power energy

## Chapter V Safety Notice Things

### 1. Contraindication of IPL:

- a. Pregnant, high blood pressure, cardiopathy, diabetes
- b. Irritability skin
- c. The open scar part
- d. Don't shun the sun in long time
- e. Stop using the efficiency products in 1-3 months, essence oil in 1-2 days, and cleared acne in three days

### 2. Instructions for using IPL:

- a. There is dangerous high-voltage inside the equipment, please make the panel board and blind flange closed.
- b. The light head must hang on the tieback when you don't use it.
- c. The light head should point at the operated position, because it sends out high-intension pulse light. Make sure the safety of the medical personnel and sufferer. Don't see the light directly even you wear the protection glasses.

### 3. Reflection and nursing after IPL treatment

- a. Don't use the efficiency cosmetics
- b. Don't use the hot water to wash face and don't take massage
- c. Don't eat the stimulus thing and pigmentary food, such as chocolate, coffee. No cigarette and alcohol
- d. Pay attention to prevent sunstroke
- e. Don't scratch the skin even if there is scab
- f. Water replenishing 10 days later

### 4. Instructions for Operation

- a. During operation, loosening the treatment switch before the switch leaving from skin (If a treatment head is leaving from skin while the switch is on, it may scald skin). Energy shall be adjusted according to patients' sensitivity;
- b. During operation, treatment head should be pressed to skin and treatment head should be pinned by hand. The treatment head should be perpendicular, but not slanted to the surface of skin;
- c. Coupling glue should be smeared to coupling part of treatment head;
- d. Strength on sensitive parts, such as cheekbone or around the eyes, should be light. It is Ok that treatment head is lightly pressed to skin;
- e. Mostly 3-4 times of treatment should be repeated;
- f. It is not allowed to sprinkle alcohol to the treatment head for antisepsis;
- g. During operation, energy should be adjusted from low to high. High energy brings good effect, however, it must be in patients' endurance;
- h. Never operate on larynx, eyeball, temple and nose;
- i. During operation, it should be cautious to operate on thin skin and parts where has

vascularity;

- j. After operation, it is normal that skin becomes light red. It will disappear in half an hour.

## **Chapter VI Maintenance**

### **Daily Maintenance**

[Notice] Our customers can only take the steps stated in this chapter for maintenance. Only technicians authorized by our company shall make other repairs.

[Caution]

- a. The apparatus shall be turned off and the power supply shall be cut off. Maintenance with electricity on may injure both of the user and the apparatus.
- b. If there are other problems on maintenance, please contact with our company.

### **1. The safety of SHR**

SHR skin rejuvenation & hair removal apparatus is high-tech medical equipment, which safely dispels all kinds of facial flaws and unwanted hair on any part of human body. As long as an employee after training appropriately operates and maintains the apparatus, it is safe to operate. Security information in this Chapter can be understood completely by all operators or other staff or adjuvants. And the most important thing is to consider the safety for patients, operators as well as the other staff. Security is the first item considered in designing the SHR skin rejuvenation & hair removal apparatus.

Part of its security measures is as follows:

- a. Self-inspection system is activated instantly when the apparatus is turned on and the system will monitor the circuit continuously in the operation of the apparatus;
- b. Filter / light guiding crystal are used and transmitted onto skin. Impulse light can only shoot from the front of the light guiding crystal;
- c. Independent safety circuit can be cut off when the intense light is too strong;



- d. Using the red emergency switch to quickly cut off power supply if need;
- e. Using the key switch, the apparatus can only be turned on by the appointed person;
- f. High-quality molded shell is to prevent electrical leakage caused harm to person.

**【Warning】**

Any intense light device and harm the people if you operate improper. The equipment can exert high voltage, so people must pay attention when operating the device and take the necessary protection measures.

Sufferer: The safety of the sufferer depends on the high qualified director, and the operating room which decorates properly. The cultural quality of the sufferer is also important, they must know well the treatment principle, and the eyes of them should be protected.

Operator: The operator may contact with high-intension light, and she must wear special safety glasses.

Operating room: You must paste the notice that the high-intension light is working.

**【Main Warning】** In order to assure the safety of equipment, you must read the warning items following:

- a. Anyone mustn't examine this apparatus except the technician who has been authorized by ESC. Attention that dangerous high-voltage inside the machine.
- b. Make sure that the specified voltage in accordance with the voltage in your own country.
- c. You can maintain this machine only after you turn off the machine and power-line. It can make personal and equipment damaged.
- d. The light head should keep clear and prevent the gule from permeating into the light head.
- e. You must turn off the machine if you find the light head seeping water.

**【Warning about Intense Light】**

- a. The intense light can hurt the eyes can cause fire, so you must take the protection measures.

- b. Radiating excessive light to the cure part of the body can damage the skin and make the usual pigment increase.
- c. You can't see the light directly.
- d. Don't radiate the light to the skin. You should put the head on the hook hitch.

## 2. The safety of electricity and machinery

- a. Keep both panel board and blind flange closed. It's dangerous if you open the blind flange.
- b. There is still the rest electricity even if you disconnect the mains lead, so you can't take apart the machine except the technician.
- c. You can't open the electricity when maintain the equipment.
- d. The equipment weight more than 40 kilograms. You must pay attention when move it. Don't pull the machine by light head.
- e. It is important for the earth wire to touch the ground.

### 【Prevent fire】

- a. The temperature becomes high if object absorb the light, so we must take measure to decrease the number of the inflammable material.
- b. Don't use the inflammable materials, such as ethyl alcohol. If necessary, please use the soap-suds and distilled water.
- c. The light head must parch when use it.

### 【System fire】

- a. The equipment has some safety device; all the operators must know the instruction manual.
- b. Key switch: The function of the key is to turn on or turn off the current source; all the keys must be provided by our company.
- c. Hurry-up switch: The red mushroom switch can turn off the source. It cut down the current whatever condition it should be. Turn it in clockwise direction and the equipment can work again.

Electric shock protection: class one and class BF

Anti-corrosion: common

Don't use the machine in the environment with flammable anesthetic and the mixture of gas and nitric oxide.

**【Warning】**

Excessive light energy may cause heat damage for skin, and tissue hyperplasia or atrophy.

Explanation: You must tell something to the sufferer before the operation: (1) there may be a little uncomfortable. (2) There maybe transient flush phenomenon. (3) It takes several times to get to the ideal effect and gradual improvement can be seen in the whole period of treatment.